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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,957	11/19/2003	Gibong Jeong	TI-36129	6452

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EXAMINER	
HA, DAC V	
ART UNIT	PAPER NUMBER
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,957	JEONG ET AL.	
	Examiner	Art Unit	
	Dac V. Ha	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/19/03* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 3-6, 39-45** are rejected under 35 U.S.C. 102(e) as being anticipated by Terao (US 7,039,097).

Regarding claim 1, Terao discloses the followings:

"receiving a delay profile" (Fig. 1, element 33)

"processing paths from the delay profile" (Fig. 1, element 36; col. 5, lines 21-47)

"placing the processed paths into a plurality of sets based on path criteria; and assigning the placed processed paths to demodulating fingers" (Fig. 1, element 36; col. 4, line 36 to 7, line 20).

Regarding claim 3, Terao further discloses "the path criteria includes path signal quality and age of path" in Fig. 2a; col. 5, lines 21-22; col. 5, lines 57-58; col. 7, line 30.

Regarding claim 4, Terao further discloses "the path criteria includes a hysteresis on the path signal quality" in col. 5, lines 57-62; col. 7, lines 24-35.

Regarding claim 5, Terao further discloses "wherein the path criteria further includes historical information regarding paths at different delay offsets" in col. 5, lines 57-58; col. 7, line 30.

Regarding claim 6, Terao discloses "wherein the historical ... in the placing" in col. col. 5, lines 57-58; col. 7, line 30.

Regarding claim 39, Terao discloses

"a path searcher coupled to a signal input, the path searcher containing circuitry to provide a delay profile for a received signal from the signal input" (Fig. 1, element 36; col. 5, lines 7-14)

"a rake receiver coupled to the signal input, the rake receiver containing circuitry to demodulate the received signal at specified delay offsets and to combine demodulated signals at various offsets into a single received signal" (Fig. 1, element 38)

"a resource manager coupled to the path searcher and the rake receiver, the resource manager to assign demodulating fingers in the rake receiver to demodulate specific paths based on information from the delay profile and to update the demodulating finger assignments when changes in the specific paths are detected" (Fig. 1, elements 26, 34, 33, 36; col. 4, line 27 to col. 7, line 67.

Regarding claim 40, Terao further disclose "a path manager ... finger assignments" in col. 4, line 27 to 7, line 55; Fig. 1, elements 24-26, 33-36.

Regarding claim 41, Terao further discloses "wherein ... memories" in Fig. 1, elements 30, 31.

Regarding claims 42-45, Terao discloses these claimed subject matter in col. 10, lines 35-57.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Terao.

Regarding claim 7, based on Terao, the "delay profile" could have been part of the path searcher as a preference.

6. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Terao in view of Ohsuge (US 6,795,422).

Regarding claim 19, Terao disclose almost all claimed subject matter of claim 19, as stated above, except "wherein a first set contains paths currently assigned to demodulating fingers, a second set contains paths of sufficient

quality to be assigned to demodulating fingers, and a third set contains paths from processing of the delay profile, and wherein the placing comprises: promoting paths from the third set to the second set based on path criteria; and removing paths from the second and the third set based on path criteria". Ohsuge, in the same field of endeavor, discloses such concept for selection is known in such environment (Abstract; col. 7, line 40 to col. 8, line 46). Thus, it would have been obvious to one skilled in the art at the time of the invention to incorporate such teaching from Ohsuge into Terao to even further reduce the computational process.

7. **Claims 29-32, 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohsuge in view of Newson et al. (US 6,370,183) (hereafter Newson).

Regarding claim 29, Ohsuge discloses "receiving demodulating finger strength measurements" "processing demodulating finger assignments; checking drop timers for the demodulating finger assignments; and ensuring demodulating finger separation" in col. 4, line 3 to col. 6, line 42; col.7, line 19 to col. 8, line 67. Ohsuge differs from the claimed invention in that Ohsuge does not discloses "fitering the demodulating finger strength measurements". However, such claimed subject matter would have been obvious to one skilled in the art as preference and/or application specific as shown in Newson, Fig. 4, element 902.

Regarding claim 30, Ohsuge further discloses "wherein the demodulating ... receiver controller" in col. 4,lines 4-41.

Regarding claims 31, 32, 38, these claimed subject matter would have been application specific/preference, thus, would have been obvious to one skilled in the art.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-45 are rejected on the ground of nonstatutory double patenting over claims 1-39 of U. S. Patent No. 6,725,016 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

10. The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: despite different in wording,

functionality, claims 1-39 of Patent No. 6,725,016 perform all claimed subject matter of that in claims 1-45 of the present invention.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Allowable Subject Matter

11. **Claims 2, 8-18, 20-28, 33-37** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tamura (US 6,977,955) discloses Demodulation Circuit For CDMA Mobile Communications And Demodulation Method Therefor.

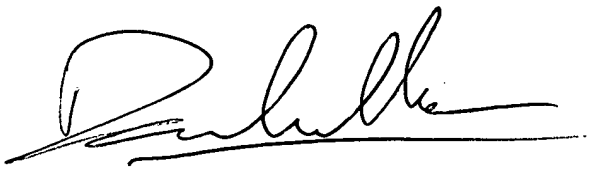
Okazaki et al. (US 2002/0181488) discloses CDMA Receiver.

Hayata (US 2004/0063420) discloses Rake Receiver And Receiving Method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3086. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Dac V. Ha
Primary Examiner
Art Unit 2611